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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,285	08/03/2005	Wolfgang Kentner	2003P00255WOUS	1328
7590	12/04/2008		EXAMINER	
John T Winburn BSH Home Appliances Corporation 100 Bosch Blvd New Bern, NC 28562			CORRIGAN, JOSEPH JAMES	
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			3744	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/544,285	KENTNER ET AL.
	Examiner	Art Unit
	JOSEPH CORRIGAN	3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 August 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 14-27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 14-27 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 03 August 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/3/05</u> . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, applicant should show where figure 6 is taken from figure 2 to further define integration of light assembly into the carrier module and a clearly depict in figure 1 said module integration into the refrigerator, especially the wall component (elements 3-5) mating with the light assembly of the said module. Details must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

--The recitation of "claim 1" (page 1, line 31) should be deleted.
--The recitation "an upper cover of the **body** 1 is formed a fixed work plate", page 5, line 4, fails to be consistent with, claim 16, lines 2 and 3 recitation "a side or table plate fixed to the housing exterior" appears to identify the body from the specification as the housing in the claims.

The applicant is advised that 37CFR paragraph (d) (1) requires that the claim or claims must conform to the invention as set forth in the **remainder of the specification** and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a)).

Appropriate correction is required.

Claim Objections

2. Claims 14-26 are objected to because of the following informalities:

In claim 14, lines 11 & 12, the phrase "display element for displaying an operational parameter" and in claim 1, lines 10 & 11, the phrase "at least one adjusting

an operational parameter“, applicant is required to distinguish between the set of operational parameters recited. For the purposes of the office action, “at least one adjusting an operational parameter” in lines 10 and 11 has been interpreted as “adjusting at least one of a plurality of operational parameters” and claim 1, lines 11 & 12, the phrase "display element for displaying an operational parameter" has been interpreted as “display element for displaying one of the plurality of operational parameters.

In claim 24, line 1, the recitation of "said carrier module bears a removable housing" should be changed to “said carrier module bears a removable **module casing**” for consistent terminology throughout the specification and the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the limitations of claims 15 and 16 appear to require a cover fixed to a housing exterior; however, dependent claim 14 requires the carrier module located in the housing. For the purposes of the office action Claim 15 recitation “including a compartment for said carrier module formed in an upper cover of said housing” has been interpreted as --including a compartment, with a cover, for said

carrier module formed inside said housing-- and claim 16, the phrase "including said cover designed as a side of table plate fixed to the housing exterior" has been interpreted as --including said cover designed as a side of table plate fixed to the housing interior--.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 14-17, 21, and 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Miozza et al '6,880,949.'

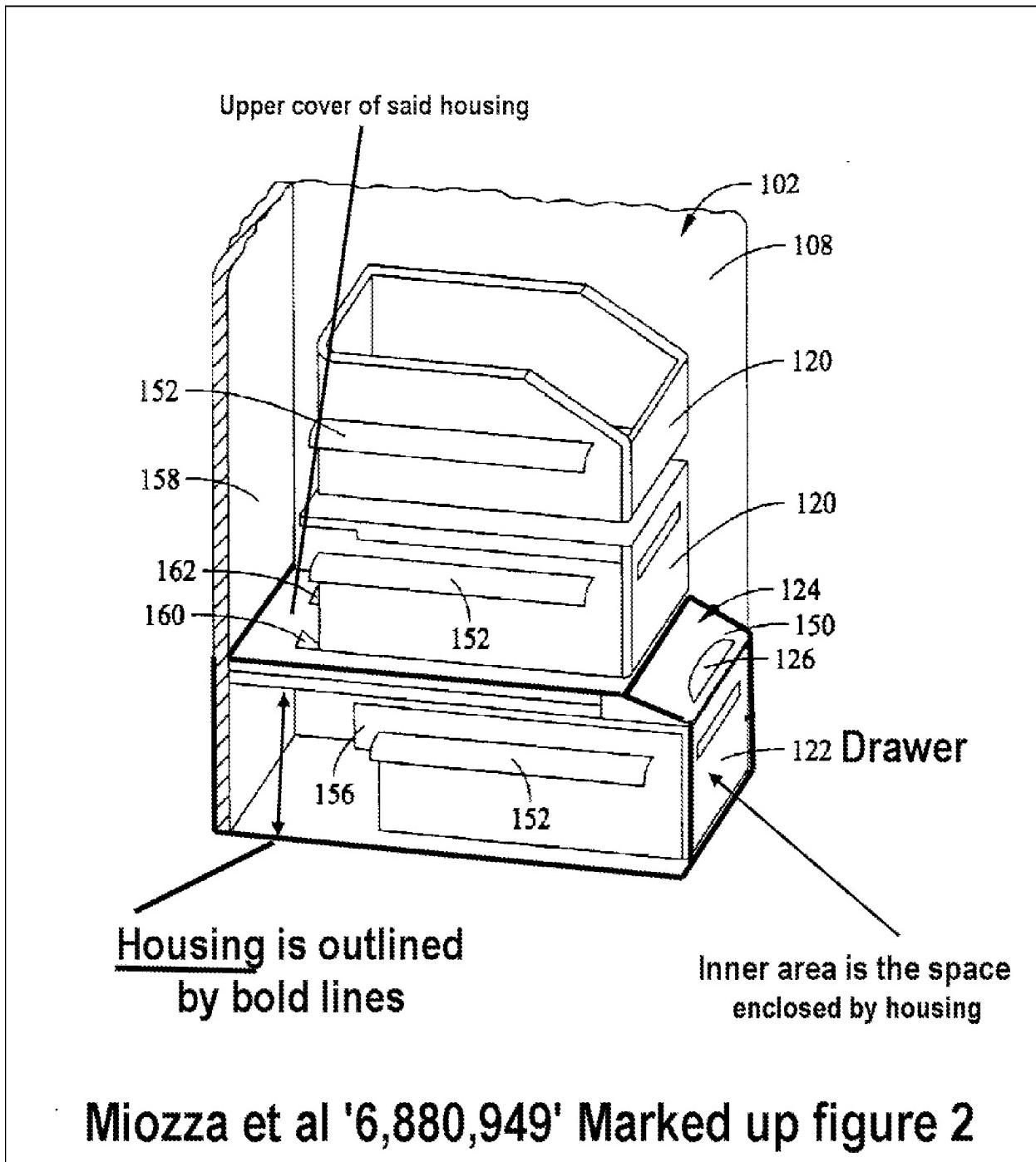
In re claim 14, Miozza et al disclose a refrigeration appliance, comprising: a housing (see marked up figure 2); said housing enclosing an inner area (122, figure 2); said inner area enclosed by a door (136, figure 1); a carrier module (figure 7) located in said housing (see marked up figure 2); and said carrier module including a control circuit (174, figure 3) for controlling (via 172, figure 3) the refrigerating capacity of the refrigeration appliance (figure 1) in said inner area (122, air space within pan, figure 2) depending on a temperature measuring signal (see temperature sensors recited in C4, L21) related to the temperature in said inner area (122, air space within) (see C8, L28-

38 re controlling drawer temperature), at least one operating element (264 temp selector, C8, L47) for at least one of adjusting an operational parameter (temperature of drawer) and a display element (176, figure 3) for displaying an operational parameter (temperature settings, C6, L18-20) of said refrigeration appliance (figure 1) and at least one illuminating agent (206, figure 7) for illuminating at least some of said inner area (see light 206 positioning in figure 6 which shines in drawer).

In re claim 15, Miozza et al disclose the invention above and further disclose a compartment (124, C7, L10) for said carrier module (figures 6-8, C9, L40-47) formed in an upper cover (see marked up figure 2) of said housing (see marked up figure 2).

In re claim 16, Miozza et al disclose invention above and further disclose said cover (210) designed as a side plate (see figure 2, upper cover portion) forming the upper portion of the housing exterior (see marked up figure 2).

In re claim 17, Miozza et al disclose invention above and further disclose that said carrier module (figure 6) and said compartment (124, fC7, L10) have at least a pair of electrical pin-and-socket connectors complementary to one another (see C9, L34-40 regarding connector end 292, figure 8 having pins and therefore inherently having socket side).



In re claim 21, Miozza et al disclose the invention above and further disclose that said carrier module (figure 6) has a free outer face (174, display) facing an upper edge

of said door (136, perpendicular from face of free face is the top edge of the refrigerator door) and including at least one window (broadly interpreted as the protective cover over the display panel 126) formed in said free outer face (free outer face meaning an exterior surface of display panel) through which said inner area can be lit up by said illuminating agent (206) located in said carrier module (see C6, L1-6 regarding light switches on control panel interface 126 and C7, L60-65 regarding light controls coupled to control interface 126).

In re claim 24, Miozza et al disclose the invention above and further disclose that said carrier module (figure 6) bears a removable housing (320, figure 10, lamp holder, C9, L62-67), which covers said illuminating agent (206, figure 7, light assembly).

In re claim 25, Miozza et al disclose invention above and further disclose a door-opening sensor (inherently part of door switch, C5, L66) arranged on said carrier module (see C5, L63-68 re door switch interface).

In re claim 26, Miozza et al disclose invention above and further disclose that said inner area (122, space within) fitted with tray-shaped cool goods compartments (122, drawer itself, C3, L60, figure 2), (see figure 2).

In re claim 27, Miozza et al disclose the invention above and further disclose a refrigeration appliance, comprising: a housing (see marked up figure 2); said housing enclosing an inner area (122, space within); said inner area enclosed by a door (136); a compartment formed in an upper cover of said housing, and a carrier module (figure 6) located in said housing compartment (see marked up figures 2); and said carrier module including a control circuit (174, figure 3) for controlling (via 172, figure 3) the

refrigerating capacity of the refrigeration appliance (figure 1) in said inner area depending on a temperature measuring signal (see temperature sensors recited in C4, L21) related to the temperature in said inner area (C8, L28-38 re controlling drawer temperature), at least one operating element (264 temp selector, C8, L47) for at least one of adjusting an operational parameter (temperature of drawer) and a display element (176, figure 3) for displaying an operational parameter (temperature settings, C6, L18-20) of said refrigeration appliance and at least one illuminating agent (206, figure 7) for illuminating at least some of said inner area; and said carrier module including at least one window (window is broadly interpreted as the transparent protective layer covering the display panel 126) formed therein through which said inner area can be lit up by said illuminating agent (206, see C7, L60-65 regarding light controls coupled to control interface 126)).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Miozza et al '6,880,949 in view of Bourner '4,285,391'.

In re claim 18, Miozza et al disclose said carrier module (figure 6) having pin and socket connectors; however, they fail to explicitly recite pin-and-socket connectors are

arranged in a self-contacting manner when said carrier module is inserted into its own compartment space.

Bourner teaches said pin-and-socket connectors are arranged in a self-contacting manner when the unit (e.g. a carrier module) is inserted into a compartment (figure 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further evolve Miozza's pin-and-socket connectors into being arranged in a self-contacting manner as taught by Bourner in order to advantageously provide a secure connection, one that is unaffected by vibration, and thereby, optimizing performance.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miozza et al '6,880,949 in view of Graf DE 3404256.

In re claim 19, Miozza et al disclose a pin-and-socket connectors of said compartment each are arranged on a mobile cable (see flexible ribbon connector 290 in figure 8, C9, L33-39 whereby a ribbon cable is considered inherently mobile) above; however, they fail to explicitly recite said carrier module includes a strain relief on which said cable can be fastened.

Graf teaches a strain relief (element 17 being the relief means, figures 3-5) on which a cable can be fastened (cable is fastened to moving end and when the component gets inserted the wires meander through part 17 storing the extra "strain relief" wiring.)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to fit Miozza et al with a pin and socket connector of said

compartment each are arranged on a mobile cable and said carrier module includes a strain relief on which said cable can be fastened as taught by Graf in order advantageously provide freedom of motion for the cable without damaging the sheathing by straining, and thereby, prolonging the cables life.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miozza et al '6,880,949, as modified by Graf DE 3404256, as applied to claim 19, and further in view of Meuer '2,206,102.'

In re claim 20, Miozza et al, as modified by Graf, disclose a pin and socket connection above; however, they fail to explicitly recite a strain relief is formed as a meandering channel in which said cable can be placed.

Meuer teaches a meandering channel (tortuous through wire passage or groove [or channel] 86, page 4, column 2, L3-10) for the placement of cabling, in a refrigeration (page 1, C1, L3) application for the purposed of strain relief (page 1, C1, L24).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Miozza et al and Graf, with said strain relief is formed as a meandering channel in which said cable can be placed as taught by Meuer in order to advantageously provide freedom of motion for the cable without damaging the sheathing by straining, and thereby, prolonging the cables life.

11. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being obvious over Miozza et al '6,880,949 in view of Lee et al '2002/0071903.'

In re claims 22 and 23, Miozza et al disclose a carrier module having a display window above; however, they fail to explicitly teach that the carrier module display window has a glass pane fixed to the carrier module.

Lee et al teach using antimony-tin oxides (ATO) as anti-fogging heating layer on glass, especially environments where cool air mixes with warmer moist air (see paragraph [0057], line 4 re anti-fogging features).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Miozza et al by incorporating a glass panel, coated with antimony-tin oxides, to cover the displaying features (e.g. LED lights) unobstructed by condensation that may occur when warm moist air enters, e.g. a refrigerator (please note that glass would be the design choice since said coating cannot be applied to plastic surfaces) as taught by Lee et al in order to advantageously optimize the visibility of display providing for accurate reading that will lead to accurate operational settings, and thereby, conserve energy.,

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **US 5,901,562** discloses a light module for a refrigerator similar to the invention herein **US 6,755,243** discloses a refrigeration unit similar to the invention herein. **US 4,706,169** disclose a refrigeration compartment device similar to the invention herein. **KR 10-2001-0017976** discloses a Kim chi refrigeration with similar refrigeration controls as invention herein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph J. Corrigan whose telephone number is 571-270-3213. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisors are Cheryl Tyler or Frantz Jules on (571) 272-4834 or (571) 272-6681, respectively. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph J Corrigan
Examiner
Art Unit 3744
10/30/08

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